UnixWare 7.1.3 Update Pack 1 New Features and Notes

April 04, 2003

This document provides installation instructions, new feature descriptions, and release notes for Unixware 7.1.3 Update Pack 1. Information that became available after Release 7.1.3 and Update Pack 1 were made available can be found on the Late News and Support web pages. UnixWare online documentation is served by DocView on **http://*hostname*:8458**, where *hostname* is the network name or IP address of the UnixWare system.

This document is installed as part of the online documentation set by the Update Pack 1 **basedoc** package. Updated manual pages are available in the **baseman** package. If you are viewing this document on the web or from the Update Pack 1 CD image, some of the links below (e.g., manual page references) will not work, as they refer to other parts of the online documentation.

Contents

- Installation Notes
  - Target System
  - Obtaining Update Pack 1
  - Update Pack Contents
- Installation Procedures
  - Installing from CD
  - Installing from Package Images
  - Checking Update Pack Installation
  - Installing Additional Packages after the Update Pack Set
- New Features
  - DocView Enhancements
  - Emergency Recovery CD Support
  - Emergency Recovery Master Boot Record Option
  - Host Bus Adapter Drivers
  - Network Card Drivers
  - PPP Enhancements
  - tcpdump Enhancements
  - UNIX95 Conformance
- Problems Fixed

Installation Notes

Target System

Update Pack 1 can be installed on Release 7.1.3 only. If Maintenance Pack 1 is already installed, Update Pack 1 can be safely installed on top of it. Any later Maintenance Packs must be removed with **pkgrm**(1M) before installing Update Pack 1.

Obtaining Update Pack 1

Update Pack 1 is available to customers who have registered their copy of Release 7.1.3 at the SCO Update Service Registration web site. Once registered, you can download Update Pack 1 as instructed in the registration letter you receive via email, as either separate package datastream images or a single CD-ROM ISO image. The ISO image can be written to a CD-ROM using any Windows or Unix CD recording software, such as **cdrtools** on UnixWare. The ISO image file can also be mounted directly without being written to a CD, as shown in the procedure below. Customers can also register to receive Update Packs on CD-ROM directly from SCO.

Licensing Update Pack 1

A registered SCO Update Service (SUS) Enabling license is required to install the Update Pack Set. If you attempt

to install the **uw713up1** set on a system that does not have a registered SUS license, the installation will fail.

An SUS Enabling license can be purchased when you order Release 7.1.3 as part of your License Edition (e.g., Base, Departmental, Enterprise, etc.). It can also be purchased separately. Contact your software supplier if you do not have an SUS license.

To check your current licenses, launch the SCOadmin License Manager from the graphical desktop, or from the command line (as **root**):

```
scoadmin license
```

The License Manager's main screen displays the currently installed licenses. One of these should mention the SCO Update Service. If you do have a SCO Update Service license installed, it must also have a "**Y**" in the **Registered?** column, in order to install the Update Pack Set.

The entire process of installing licenses on your system and registering your SCO Update Service license is described in the online documentation under **Installation and Licensing>Getting Started Guide>CD Contents, Licensing, Installation Profiles, and Support**. The *Getting Started Guide* is also available on the UnixWare Doc Web Page.

Update Pack Contents

Update Pack 1 consists of a single Update Set named **uw713up1**, as well as a number of additional updated packages. Use the Upgrade Wizard package included on the Update Pack CD image to install them.

Update Pack 1 CD Contents

Package/Set	Description
uw713up1 Set	The Update Pack 1 Set installs these packages: • **libc** - Updated Runtime C Library • **libthread** - Updated Runtime Thread Library • **uw713u1** - Other updates that did not require a package recut
basedoc package	Updated online topics
baseman package	Updated manual pages
basex package	Updated X11R6 Base X Runtime System
j2jre131 package	Updated Java 2 SE 1.3.1 Runtime Environment 1.3.1
j2plg131 package	Updated Java 2 SE 1.3.1 Java Plug-in (Netscape only)
j2pls131 package	Updated Java 2 SE 1.3.1 Demos and Debug
j2sdk131 package	Updated Java 2 SE 1.3.1 Software Development Kit
nd package	Updated Network Drivers
mpt package	New LSI Logic Fibre Channel HBA Driver
nics package	Updated Netdriver Infrastructure and Configuration Subsystem
qlc2200 package	Updated QLogic PCI FC HBA Driver
uli package	Upgrade Wizard for Update Pack 1
xserver package	Updated X11R6 X Server

Installation Procedures

You can install the Update Pack from a single CD ISO image, or from separate package images (see Obtaining Update Pack 1).

Installing from CD

The procedure below shows you how to install Update Pack 1 from a mounted ISO CD image, or from a CD to which the ISO image has been written using the Upgrade Wizard.

NOTE: If you are applying the Update Pack to a newly installed or upgraded Release 7.1.3 system, be sure to reboot the system after the Release 7.1.3 installation or upgrade is complete and *before* you apply the Update Pack.

1. Log into the system as **root**.
2. Do *one* of the following:
   a. If you have a CD with the Update Pack image on it, insert the CD into the primary CD drive and go to the next step.
   b. If you have the CD ISO image, use the **marry**(1M) and **mount**(1M) commands, as in this example, to mount the CD ISO image as a device:

      ```
      # marry -a /var/spool/pkg/uw713up1CDimage.iso
      /dev/marry/var/spool/pkg/uw713up1CDimage.iso
      # mount /dev/marry/var/spool/pkg/uw713up1CDimage.iso /install
      ```
3. Install the **uli** (Upgrade Wizard) package from the CD. Use either the SCOadmin Application Installer from the graphical desktop, or the following command line:

   ```
   # pkgadd -d device uli
   ```

   where *device* is **cdrom1** if you followed Step **2a**; or, **/install** if you followed Step **2b**.
4. Once the **uli** package is installed, launch the Upgrade Wizard. Do *one* of the following:
   a. If you are using a CD in the CD drive (Step **2a**), start the Upgrade wizard by launching SCOadmin from the graphical desktop, or entering the following at a shell prompt:

      ```
      # uli
      ```
   b. If you are using a mounted CD ISO image (Step **2b**), start the Upgrade Wizard from the command line by entering the following command:

      ```
      # uli -f device
      ```

      where *device* is the name of the directory where you mounted the ISO image in **Step 2b** (**/install** in our example).
5. When the Upgrade Wizard starts, a screen displays a message that the Upgrade Wizard will install the Update Pack software. Click **Next** to continue.
6. The Upgrade Wizard displays the Software License Agreement. Click **Accept** to continue.
7. If you followed **Step 4a** and used the **uli** command with no options, skip to the next step.

   Otherwise, if you followed **Step 4b** and used **uli -f**, a screen is displayed that lists the primary CD drive and the directory you specified, with the directory selected as the default installation device. Click **Next** to continue and install from the directory.
8. The Wizard checks the contents of the installation device for the Update Pack. Click **Next** to continue and begin installing the Update Pack.
9. The Upgrade Wizard automatically installs the Update Pack Set (see the CD Contents), displaying installation messages in a new window.
10. When the Upgrade Wizard finishes installing the Update Pack Set, it displays the **Package Selection List**, a

list of the additional packages on the CD that are not installed automatically by the Update Pack Set. If the Wizard detects previous versions of any of the Update Pack CD packages on your system, the updated version on the CD appears in the **Chosen Packages** list on the right. Use the **Remove** button to move packages that you don't want to install from the **Chosen Packages** list to the **Available Packages** list. Any packages that remain in the **Available Packages** list will not be installed.

NOTE: Some packages on the CD may not be presented in the **Package Selection List**. This happens when the Upgrade Wizard does not find a previous version of the package on your system. In order to install such a package, you need to first install the package from the original UnixWare 7.1.3 media used to install the system (along with any prerequisite packages). See the online Getting Started Guide for UnixWare 7.1.3 installation instructions.

Once you are finished selecting packages, click **Next** to continue.

11. A summary of your package selections and the space they require on your hard disk is displayed. Click **Next** to confirm your selections and continue. Click **Previous** to go back to the previous step and change the **Package Selection List**.

12. After you confirm your package selections, the Upgrade Wizard installs the packages you selected. It displays a progress bar as each package is installed. When the Wizard is done, click **Finish** to exit.

13. If you followed **Step 1a**, go to the next step.

    Otherwise, if you followed **Step 1b**, unmount the CD image and delete the **marry** device:

    ```
    # umount /install
    # marry -d /dev/marry/var/spool/pkg/uw713up1CDimage.iso
    ```

14. Reboot your system to rebuild the kernel. From the Desktop, use the SCOadmin Shutdown Manager. From the command line, enter the following:

    ```
    # shutdown -i6 -g0 -y
    ```

15. When the system comes back up, you can log in and check the installation as shown in the section Checking Update Pack 1 Installation.

    If you later decide that you want to add additional packages from the Update Pack CD, see the section Installing Additional Packages after the Update Pack Set.

Installing from Package Images

Separate images for the Update Set and all available packages on the CD (e.g., **uw713up1.image**, **nd.image**, etc.).

These are in datastream format and must be installed using the pkgadd command. Follow this procedure to install the images you download.

NOTE: You *must* install the **uw713up1** set before installing any of the other packages available with Update Pack 1.

1. Download the set and package images from the SCO Update Service, and place them in */var/spool/pkg* (or any other directory that has enough free space to accommodate the images).

2. Enter the following to install the update set:

   ```
   # pkgadd -d /var/spool/pkg/uw713up1.image all
   ```

3. Enter the following command for each additional package image:

   ```
   # pkgadd -d /var/spool/pkg/imagename all
   ```

4. Reboot your system to rebuild the kernel. From the Desktop, use the SCOadmin Shutdown Manager. From the command line, enter the following:

```
# shutdown -i6 -g0 -y
```

5. When the system comes back up, you can log in and check the installation as shown in the section Checking Update Pack 1 Installation.

   If you later decide that you want to add additional packages from the Update Pack CD, see the section Installing Additional Packages after the Update Pack Set.

Checking Update Pack Installation

Once installed, use the following command to confirm that the **uw713up1** set has completely installed. The system should respond with output similar to that shown in the example below:

```
# pkginfo -lc set uw713up1
   PKGINST:  uw713up1
      NAME:  UnixWare 7, Release 7.1.3 Update Pack 1
  CATEGORY:  set
      ARCH:  IA32
   VERSION:  7.1.3
    VENDOR:  Caldera International, Inc.
    PSTAMP:  UnixWare 7.1.3 02/16/2003 bl1
  INSTDATE:  Feb 17 2003 09:33 AM
    STATUS:  completely installed
```

If the STATUS field indicates anything other than `completely installed`, there was some problem during installation of the set. Re-install the set and record any error messages displayed. Then, check the Late News and Support web sites to check for additional Update Pack 1 notes.

A similar command can be used to check the status of any individual packages installed, as in this example:

```
# pkginfo -l nd nics
```

Package information can also be obtained using the SCOadmin Application Installer, launched either from the graphical desktop, or from the command line as shown:

```
# scoadmin application &
```

Installing Additional Packages after the Update Pack Set

After you have installed the Update Pack 1 Set (**uw713up1**) and rebooted your system, you can use either the Upgrade Wizard or the pkgadd(1M) command to install any packages on the CD-ROM that you did not select when you installed the Set. Use one of these methods:

- **Use the Upgrade Wizard:**
  Follow the Installation Procedure, omitting Step 3.

  NOTE: Using the Upgrade Wizard will re-install the Update Set (**uw713up1**) automatically before installing additional packages. If you want to load additional packages without re-installing the Update Set, use **pkgadd**, as shown below.

- **Use the pkgadd command:**
  Follow Steps 1 and 2 of the Installation Procedure, and then enter the following:

  ```
  # pkgadd -d device package...
  ```

  The *device* is **cdrom1** if you followed **Step 2a**; or, **/install** if you followed **Step 2b**. Replace *package* with the names of one or more packages on the CD (see CD Contents). This example installs the **nd** and **nics** packages from a mounted ISO image file:

  ```
  # pkgadd -d /install nd nics
  ```

New Features

DocView Enhancements
Emergency Recovery CD Support
Emergency Recovery Master Boot Record Option
Host Bus Adapter Drivers
Network Card Drivers
PPP Enhancements
tcpdump Enhancements
UNIX95 Conformance

DocView Enhancements

The DocView documentation server displays the UnixWare documentation set on port 8458, and is enabled by default for network access. Point any browser on your network at **http://*hostname*:8458**, where *hostname* is the network node name of the UnixWare system.

Two enhancements have been made to DocView:

Automatic Indexing

A **cron**(1M) script has been added that generates the DocView index automatically when changes are made to the installed documentation. The cron job runs every day at 0310 hours (3:10 AM local time), and is installed by default. This process can take a significant amount of time depending on the amount of documentation being indexed and available system resources. The cron job is enabled and disabled using the following commands:

```
# /usr/lib/docview/conf/set.rundig.cron --add
# /usr/lib/docview/conf/set.rundig.cron --remove
```

DocView Print Service

A new printing interface has been added that allows you to pick a group of topics to be printed as a book.

Clicking on the **Print Book** button at the top of the DocView screen opens a copy of the DocView Site Map, from which you can select topics for printing by clicking on the check boxes next to the listed topics. At the top of the Print Service screen, select whether you want to generate a PostScript or PDF file. Specify a title for the book, and the heading level to be used in the table of contents.

When you click on the **Submit** button, the selected topics are collected, formatted for printing, and paginated. The cover and custom table of contents are generated and added to the beginning of the document.

When DocView is finished preparing the file, it displays a screen telling you the size of the file and the number of pages in the document. Click the **Proceed with download** button to start downloading the file to your browser (or save it to a file on your local system).

The resulting PDF file can be viewed with any PDF viewer (such as **xpdf** on UnixWare, or Acrobat on Windows) or PDF-enabled browser. The PostScript file can be printed to a PostSript printer via **lp**, as in this example:

```
$ lp -T PS -d printer file
```

Note that the assembled PDF or PostScript file is limited to about 1.5MB of HTML text, or about 600 pages. If your selections exceed this limit, an error message is displayed. Click on your browser's **Back** button to go back to the Print Service screen and turn off some of your selections.

Emergency Recovery CD Support

The **emergency_disk**(1M) command now supports creating an emergency recovery boot CD, as an alternative to using boot floppies. In previous releases, a set of emergency recovery floppy disks was required to boot the system. This meant that your system had to have a 3.5-inch floppy disk drive in order to be restored from emergency recovery media. This is a problem for newer systems that do not support IDE floppy drives. Now, **emergency_disk** can create a boot CD using CD-R or CD-RW media on an IDE, SCSI, or USB recordable CD drive, so that boot floppies are no longer required. See the emergency_disk(1M) manual page for more information.

Note that the **cdrtools** package (found on the UnixWare 7.1.3 Optional Services CD #3) is required to create an emergency recovery boot CD, and that only CD-R, CD-RW, and DVD+RW drives that work with **cdrtools** are supported for emergency recovery.

To test a particular drive to see if it will work with **emergency_disk**, enter the **cdrecord** commands shown below. The first command returns the arguments you need in the second command. The second invocation of **cdrecord** should return the string shown as part of its output:

```
# /bin/cdrecord -scanbus
# /bin/cdrecord -inq dev=scsibus,target,lun
...
Device seems to be: Generic mmc CD-RW.
...
```

The following CD drives are known to work with emergency recovery:

CenDyne/AOpen 48X12X50 USB
HP DVD+RW 200i ATAPI
LITE-ON LTR-52246S IDE
Plextor CD-RW 16/10/40A ATAPI
Plextor CD-RW 24/10/24U PX-W2410A USB
Yamaha CD-RW CRW8824S SCSI

Problems have been observed with the **IOMEGA ZIPCD USB** drive and the **OPTORITE CD-RW CW4802 IDE** drive.

To prevent a timeout problem when burning a CD using an IDE CD-RW drive, the following value in */etc/conf/pack.d/ide/space.c* is changed by the installation of the Update Pack from:

```
int atapi_timeout=10;
```

to:

```
int atapi_timeout=1000;
```

If you use **cdrtools** to burn CDs on an IDE hard drive but do *not* install the Update Pack, you can make the above change manually, and then reboot to rebuild the kernel.

Emergency Recovery Master Boot Record Option

When restoring the system using emergency recovery boot media (CD or floppy), a new option to write the master boot record (MBR) of the primary hard disk is displayed. This option writes the UnixWare MBR to the boot sector of the primary hard disk. This option is useful if the disk is known to have a valid operating system (OS) on it, yet the error `No OS found`, `No operating system`, or a similar message is displayed when you attempt to boot from the disk. Writing the MBR may permit the disk to boot without further recovery. Note that any other OS boot loader in the boot sector (such as **grub**, **lilo**, or System Commander) will be overwritten by this option.

Host Bus Adapter Drivers

The following Host Bus Adapter (HBA) drivers are new or updated:

mpt
A new LSI Logic PCI to SCSI and Fibre Channel host adapter driver for LSI Logic Ultra320 and Fibre Channel chipsets. For supported devices and other information, see mpt(7).

qlc2200
Updated QLogic PCI FC host adapter driver to fix problems reported when removing disks from an IBM ESS Storage Area Network (SAN) Cabinet. For supported devices and other information, see qlc2200(7).

These drivers are not installed by the Upgrade Wizard (**uli**), unless (in the case of **qlc2200**), a previous version exists on the system. To install them, use the **pkgadd** command. Follow Steps 1 and 2 of the Installation Procedure, and then enter the following:

```
# pkgadd -d device package...
```

The *device* is **cdrom1** if you followed **Step 2a**; or, **/install** if you followed **Step 2b**. Replace *package* with the names of one or both of the drivers. This example installs the **mpt** driver from a mounted ISO image file:

```
# pkgadd -d /install mpt
```

See the Compatible Hardware Page for the latest supported HBAs and drivers.

Network Card Drivers

The **nd** package on the Update Pack CD contains updated versions of the following network interface card (NIC) drivers, which now support the indicated network cards:

eeE8

```
PRO/100+ Management Adapter (PILA8900)
PRO/100 Server (PILA8480)
Pro/100B T4 (PILA8475B)
PRO/100 S Server (PILA8474B)
PRO/100 S Server (PILA8474BUS)
PRO/100+ Dual Port Server Adapter (PILA8472)
PRO/100+ Server Adapter (PILA8470)
PRO/100+ Server Adapter (PILA8470B)
PRO/100+ Dual Port Server Adapter (61PMCA00)
PRO/100 (PILA8465)
PRO/100B Adapter (PILA8465B)
InBusiness 10/100 Adapter (SA101TX)
PRO/100 S Management (PILA8464B)
Pro/100+ Management Adapter (PILA8461)
Pro/100+ (PILA8460)
Pro/100+ Management Adapter (PILA8460B)
Pro/100+ (PILA8460BN)
PRO/100 S Management (PILA8460BUS)
Pro/10+ (PILA8500)
Pro/10+ (PILA8520)
```

e1008g

```
PRO/1000 Gigabit Server Adapter PWLA8490
PRO/1000 Gigabit Server Adapter PWLA8490G1
PRO/1000 F Server Adapter PWLA8490SX
PRO/1000 Gigabit Adapter PWLA8490SXG1P20
PRO/1000 T Server Adapter PWLA8490T
PRO/1000 T Server Adapter PWLA8490TG1P20
PRO/1000 XT Server Adapter PWLA8490XT
PRO/1000 XT Server Adapter PWLA8490XTL
PRO/1000 XT Lo Profile Server Adapter PWLA8490XTL
```

```
PRO/1000 XF Server Adapter PWLA8490XF
IBM Netfinity Gigabit Ethernet SX Adapter 09N3599
IBM Netfinity Gigabit Ethernet SX Adapter 30L7076
IBM Gigabit Ethernet SX Server Adapter 06P3718
IBM Gigabit Ethernet Server Adapter 22P4618
PRO/1000 MT Desktop Adapter PWLA8390MT
PRO/1000 MT Server Adapter PWLA8490MT
PRO/1000 MT Dual Port Server Adapter PWLA8492MT
PRO/1000 MF Server Adapter PWLA8490MF
PRO/1000 MF Dual Port Server Adapter PWLA8492MF
```

You can select the **nd** package when you use the Upgrade Wizard to install the Update Pack CD. To add the **nd** package separately, see the instructions in the section Installing Additional Packages after the Update Pack 1 Set.

The UnixWare 7.1.3 **nd** package can also be installed on Release 7.1.2 (also known as OpenUNIX 8.0.0) or Release 7.1.1 to update the network drivers or to take advantage of the enhanced **tcpdump** functionality (see tcpdump Enhancements).

Please note the following when installing the Release 7.1.3 **nd** package on 7.1.1:

- You will also need to install **ptf7689b** (view text file | download) on Release 7.1.1 before installing the updated **nd** package; otherwise the latest **tcpdump** fails on Release 7.1.1 with the message `dynamic linker: tcpdump: binder error: symbol not found: strlcpy.`
- During installation on Release 7.1.1, the error `UX:grep: ERROR: cannot open /etc/inst/nd/mdi/shrkudi/Master: No such file or directory` is displayed. This error affects the UDI **shrk** driver only, which is not supported on Release 7.1.1. Use the MDI version of the **shrk** driver instead.

PPP Enhancements

Various enhancements were made to the **pppd**(1M) daemon to enhance the reliability and scalability of Point-to-Point Protocol (PPP) connections. Most of these improvements were made to driver code, and so are not visible at the user level. Some are listed in the section Problems Fixed.

tcpdump Enhancements

Version 3.7.1 of **tcpdump**(1M) is provided, along with its supporting library, **libpcap**(3) (version 0.7). The **tcpdump** utility allows you to view and save TCP headers passing through a particular network interface. Boolean expressions can be used to select only those headers that match the criteria given by the expression.

This version of **tcpdump** has many enhancements over the version (3.4a5) provided in UnixWare 7.1.3. Most notably, the new version does not require a dedicated network card for **tcpdump**. Multiple instances of **tcpdump** can be started to monitor the same card. See the tcpdump(1M) and pcap(3) manual pages. Also see the tcpdump web site for **libpcap** tutorials, as well as **tcpdump** and **libpcap** source code.

A number of changes to the MDI and DLPI interfaces were made to support the new version of **tcpdump**.

Two new MDI **ioctl** commands are added for MDI2.2 drivers, to turn promiscuous mode on and off: MACIOC_PROMISCON and MACIOC_PROMISCOFF. MACIOC_PROMISCON is compatible with MACIOC_PROMISC in MDI2.1.

The following DLPI2.0 features are also implemented:

- Allow sharing of SAPs by network interface cards.
- Support the DL_PROMISCON_REQ and DL_PROMISCOFF_REQ primitives.

To support the above changes, updated header files *dlpimod.h* and *mdi.h* are provided in the **nics** package for Update Pack 1, as well as the updated support for running tcpdump on a non-dedicated network card. **tcpdump**, **libpcap**, and related header files are provided by the **nd** package. If the **nd** package is installed without the

updated **nics** package, the updated **tcpdump**, etc., are installed, but must be used with a dedicated network controller as in previous releases.

The updated **nd** package can also be installed on Release 7.1.2 (Open UNIX 8.0.0) and on Release 7.1.1 if the latest version of **tcpdump** is desired. See for more information and installation prerequisites. The **nics** package is not supported and will not install on these earlier releases, however, so **tcpdump** on Release 7.1.1 and 7.1.2 will continue to require a dedicated network card.

UNIX95 Conformance

The following minor modifications have been made in order to maintain conformance to the UNIX 95 standard:

- The **dd** command was modified to accept and ignore a double dash (--) as an end of options indicator. Note that **dd** has no options that begin with a dash (-), so "--" can only appear as the leading argument and consequently has no real purpose.

- The **sort** command was modified *to remove* its previous (mistaken) UNIX 95 behavior. Previously, when using **sort -c** with the POSIX2 environment variable set, **sort** only indicated whether the input was sorted through its exit value. The sort command was changed for Release 7.1.3 to remove the dependency on the POSIX2 environment variable, so that **sort -c** will always return a diagnostic if the input is out of order.

- The two supported Korn shells (*/bin/ksh* and */u95/bin/sh*) did not recognize an integer literal with a leading **0** as being octal, nor a leading **0x** or **0X** as hexadecimal in arithmetic constructs. This does not match the intent of the POSIX.2 and OpenGroup shell specification. So, for example, the following output was seen in previous versions of the Korn shell:

  ```
  $ echo $((10+1))
  11
  $ echo $((010+1))
  11
  $ echo $((0x10+1))
  /u95/bin/sh: 0x10+1: arithmetic syntax error
  ```

  A change was made to work as intended when the POSIX2 environment variable is set:

  ```
  $ export POSIX2=on
  $ echo $((10+1))
  11
  $ echo $((010+1))
  9
  $ echo $((0x10+1))
  17
  ```

  Note that because integer constants like **010** have a silent change in behavior, this change requires POSIX2 to be set in the environment.

- Minor namespace changes to the following header files:

  arpa/inet.h
  netdb.h
  netinet/in.h
  netinet/in6_f.h
  netinet/in_f.h
  fmtmsg.h
  grp.h
  libgen.h
  pwd.h
  stdarg.h
  strings.h
  unistd.h

utmp.h
utmpx.h
wchar.h
sys/fcntl.h
sys/stat.h
sys/statvfs.h
sys/convsa.h
sys/stropts.h
sys/mman.h
sys/socket.h
sys/un.h
sys/regset.h
sys/siginfo.h
sys/ucontext.h
sys/fp.h

Problems Fixed

Update Pack 1 (**uw713up1**) contains all the fixes from Maintenance Pack 1 (**uw713mp1**), plus additional fixes. See the lists below. The identifiers at the end of these descriptions are SCO escalation and problem report numbers.

Problems fixed in Maintenance Pack 1

1. Prevents system panics previously caused when fusers examines an exiting process.
   fz526462

2. Prevents hangs seen on Compaq ML350 and ML370 Systems when hyperthreading (Jackson Technology) is enabled, i.e., when the boot parameter ENABLE_JT is set to YES.
   fz526444

3. Fixed problems with the desktop help viewer.
   fz526501

4. Provides missing scoadmin filesystem files that were not installed when upgrading from UnixWare 7.1.1 or Open UNIX 8.0.0.
   fz526550

5. Provides updated include files that were not installed when upgrading from UnixWare 7.1.1 or Open UNIX 8.0.0.
   fz526552

6. Provides a new makewhatis(1M) command that was not installed when upgrading from UnixWare 7.1.1 or Open UNIX 8.0.0.
   fz526526

7. Fixed crash to recognize changes to the callout structure.
   fz518517

8. Fixes issues target disk driver error recovery.
   fz520729

Problems fixed in Update Pack 1

uw713up1 contains all the fixes listed above for **uw713mp1** plus the following additional fixes.

Security Fixes

9. SECURITY: Closing file descriptors 0, 1 and/or 2 before executing a setuid program can make this program open files under these file descriptors, which have special meanings for libc (stdin/out/err). Reading or writing to root-owned files can be made possible, since stdXX==opened_file.
   erg712059 fz526562

10. SECURITY: A rogue talk client is able to cause talk demon to overrun a buffer, and could be able to compromise privilege of the machine running talkd.
    erg712055 fz521053

11. SECURITY: Buffer overflow in XPR portion of libnsl library.
    erg712182 fz526861

12. SECURITY: A command line buffer overflow in ps command can be exploited.
    erg712109 fz525923

13. SECURITY - The implementation of xdr_array can be tricked into writing beyond the buffers it allocated when deserializing the XDR stream.
    erg501642 fz525725

14. SECURITY: Fixed a security vulnerability in sendmail binary that can be exploited by remote users to gain root access.
    fz527484 erg712247

15. SECURITY: Ftp'ing a file with a pipe as the first character in its name (for example, |xyz) executes the file on client machine.
    erg712227 fz527425 CSSA-2003-SCO.3

Networking fixes:

16. When receiving data from a TCP socket it may lock up indefinitely with data buffered up in the kernel but never returned to the process.
    fz520887

17. Panic in PPP driver - pppwsrv() - due to a race condition.
    erg501673 fz526330

18. Panic in PPP's pcid driver.
    erg501650 fz525867

19. Communication problem between pcid and ppp driver.
    erg501678 fz526352

20. The function write(2) erroneously returns EISCONN on a raw socket.
    erg501681 fz526404

21. Connection server fails with the following error: "10/24/02 17:14:51; 27209; cs: ioctl() set signal error; errno=22"
    erg712153 fz526540

22. The utility ttymon sometimes stops listening to a port after PPP disconnect.
    erg501634 fz525626

23. Improved network printing performance.
    erg712041 fz520932

24. If an ftp client host was reset (as in cycling the power) during the data transmission to the server, the ftp-data connection never times out on the server. If the client tries to use again the same port after reboot for an ftp transmission, the server responds with EADDRINUSE.
    erg501703 fz526973

25. After removing a network interface, "pkgchk nics" complains about missing files.
    erg712152 fz526505

26. When excessive short-lived rlogin sessions are being created, /var/adm/wtmp and /var/adm/wtmpx get out of sync and must be rewritten. While these files are being rewritten, no one can rlogin to the system. If these

files grow quite large, this can take up to 20-30 minutes. Also under heavy load the short-lived rlogin sessions may leave in utmp the entries from sessions that have actually completed.
fz526496 erg712151

27. Occasionally bind() returns EADDRINUSE for no apparent reason.
erg712209 fz527217

28. Fixed an NFS panic which can occur following certain types of transmission errors.
fz526648

29. Fixed an NFS hang which can occur when mounting an NFS file system.
fz526665

30. Cleaned up code which handles dispatching of tcp timers.

31. Unplugged network cable causes terrible interactive console performance
fz520663

32. Can't write to /dev/_tcp/ tty device (rlogin connection).
erg712250 fz526110

33. System panic while running LSV inet stress tests (GetService).
fz526345

34. The utility cs(1Mbnu) fails to include the phone number.
erg501670, fz526315

35. PPP stability and scalability improvements.
fz527328

36. Panic in tcp_close.
fz527439

Miscellaneous fixes

37. Multi-threaded application may hang in an unkillable sleep, during exec.
erg712172 fz526750

38. System hangs due to racing stropens.
erg501706 fz527158

39. lint previously warned about _nanf() and nanf() in *math.h*. Adding a /*LINTED*/ line in front of each suppresses this noise.
fz527588

40. The utility cs(1Mbnu) exits unexpectedly due to fork(2) failure.
erg501710 fz527253

41. The emergency_rec(1M) command doesn't ignore commented entries in /usr/lib/drf/tapeconfig
fz527399

42. Fix for "sdiadd -n" panic on systems with HBA's pre-DDI8. The problem was that sdi_hot_add() was not converting the older style SCSI address into the newer extended SCSI addressing scheme properly. The original erg fix set the address to -1's instead of 0's for the wildcard case. Remember, pdi_hot will set the SCSI address to all -1's to tell SDI that we want to scan the entire SCSI bus starting from absolute adress 0/0/0/0 (controller/bus/target/lun).
erg712223 fz527360

43. The command pwck(1M) should print the line being processed, when errors encountered.
erg712157 fz518020

44. Added minor command modifications required by the Open Group for UNIX certification. For details, please see the ``Additional UNIX 95 Support'' section below under ``Supplementary Documentation.''
fz526395 fz526629 fz527377

45. Fix locking of CD-ROM tray.
    fz527497

46. The command "sar -d" returns busy values > 100%
    fz521100 erg501658

47. Fixed bugs which caused the licensing daemons (ifor_pmd, ifor_sld, and sco_cpd) and the idmknodd daemon to be killed on transitions to init state 1 and never restarted.
    fz526649, fz526656

48. The mousemgr process could not be run in init state 1.
    fz527032

49. Updated "/sbin/usb" to only run when "usbd" is configured.
    fz527495

50. Fixed tape driver bug relating to SAN attached tape drives.
    fz526396

51. Fixed potential problem evaluating constant expressions in full_optimization asm functions.
    fz527501

52. The emergency_disk boot media hangs on system with more than 4 GB RAM.
    fz527578

53. Panic in the routine 'v86bios0()'
    fz526652

54. Include support tool `sysinfo` in shipping product.
    fz519999

55. Intel's fix for p6update panics on prototype Pentium 4 Xeon system.
    fz521607

56. Kernel panic in kmem_alloc, from tcpopen.
    fz521356

57. Added kernel tunable COREFILE_SECURE.
    erg712163, fz526524

58. System hangs sporadically after calling execv directly after fork1 in multithreaded applications.
    fz526597

59. Netscape postscript printing in kole (Korean) environment is broken.
    fz520071

60. If the Skunkware Ghostscript is installed, the PostScript files (such as those printed by Netscape) can be automatically converted for printing on the PCL printers (such as HP LaserJet). An example of command to enter in the Netscape print dialog:

    ```
    lp -T PS
    ```

61. Added undocumented option "noquota" to the vxfs mount command to fix the problem where the output of `mount -p` when used in /etc/vfstab, is rejected by mount with the message:

    ```
    UX:vxfs mount: ERROR: illegal -o suboption -- noquota
    ```

    erg712190 fz526894

62. The kernel can panic in mod_dev_load if a DDI8 driver does not get configured properly.
    fz526791

63. Repeated logins on virtual terminals (/dev/vt02 ... /dev/vt08) result in file descriptor leakage in ttymon.
    erg501636 fz525650

64. Correctly display version of dump command with -V option.

fz518607

Development Fixes

65. Assembly peep-hole optimizer (optim) fix for three operand integer multiplication by one which was not caught by the global optimizer on C++ code.
    fz526555

66. C++ compiler fix: Unless in strict ANSI mode, allow an undefined inline function to be referenced if the point of reference is never used.
    fz526499 fz526480

67. Debugging information for a "long long" local variable assigned to register pair %ebx/%esi was incorrectly stated as %ebx/%esp. C and C++ compilers fixed.

Compatibility fixes

68. Fix for panic on certain OpenServer binaries.
    erg550013 fz514721

69. Chown() arguments of -1 do not work for OSR5 binaries.
    fz526683

© 2003 Caldera International, Inc. All rights reserved.